

October 15, 2001

Mr. Mike Ribordy
U.S. EPA – Region 5
77 West Jackson Boulevard (SR-6J)
Chicago, IL 60604-3590

RE: Sauget Area 2 Sites

Deliver by Overnight Mail

Dear Mike,

Enclosed please find several Standard Operating Procedures (SOPs) for your review in accordance with our discussions via conference call last week (10/9/01) on this topic. Severn Trent Laboratories, Inc. has been selected by the Sauget Area 2 Sites group to perform all non-biological analytical work for this effort, with the exception of the soil gas survey, which will be performed by HydroLOGIC, Inc. Therefore, all SOPs previously submitted for either Triangle Laboratories or Lancaster Laboratories should be disregarded. The SOPs that have been attached include the following:

Severn Trent Laboratories, On-Site Technologies Division (mobile laboratory for soil screening)

- SOP OSMV1007.R1, VOCs by GS/MS
- SOP OSMS1013.R1, SVOC's by GC/MS

Severn Trent Laboratories, Inc. (fixed laboratory, Sacramento CA)

- SOP SAC-ID-0011 Dioxins/Furans by EPA Method 8280A
- SOP SAC-ID-0005 Dioxins/Furans by EPA Method 8290

Hydro-LOGIC, Inc. (mobile laboratory for soil gas survey)

- Sample Collection SOP
- SOP HLI-SOP-A-015-R1 Organics by EPA Method 8021

Severn Trent (the On-Site Technologies Division) is currently modifying the SOP for metals by X-Ray refraction (XRF) to account for site-specific calibration procedures, based on the discussions held during the conference call on this topic. This will be provided under separate cover immediately upon completion, which is expected within a day or two.

The SOPs for the mobile laboratory analysis of soil samples by GS/MS are revisions to those presented previously. Provided below is a summary of the EPA comments and how those comments have been addressed in the revision.



Mr. Mike Ribordy
U.S. EPA – Region 5
October 15, 2001
Page 2

B Volatile Organic Compounds by GC/MS SOP 0SMV1007.RO

1) Section 6.0 - Will this SOP be using the modified preparation EPA Method 3810?

- *The laboratory will use EPA Method 5030 for sample introduction. The procedures are provided in section 6.8 of the SOP.*

2) Section 8.3 - Specify the concentration of the standards. The SOP appendices were not included.

- *Language has been added after section 8.3.3 to provide additional details regarding standard concentrations.*

3) Section 9.3.1 typo - Reference to Table 10, should be Table 2.

- *Corrected*

4) Section 9.4.2 - Table 11 and Table 12 were not included.

- *Deleted reference to tables and added text directly*

5) Section 10.6.1 typo - Reference to Table 9, should be Table 3

- *Corrected*

6) TABLE 1.0 - The Quantitation Limits (QLs) for Acetone, 2-butanone, 2-hexanone, carbon disulfide, and cis- & trans-dichloropropene should be included. See QAPP TABLE 5D. Include any missing compounds in Table 5.0 and Table 7.0.

- *Table updated to include reporting limits for these compounds. Limits in QAPP to apply to fixed, confirmatory lab*

C Semivolatile Organic Compounds (SVOCs) by GC/MS SOP OSMS1013.RO

1) Section 9.7.7 - Figure 7.0 (mass spectra review checklist) was not included.

- *Removed text - we do not use checklist specifically for mass spectra review. Review procedures related to this topic included in section 12.*

2) Section 9.9.1, typos - Reference to Figure 5.0, should be Figure 6.0. Reference to Tables 6.0 and 7.1, should be Tables 7.0 and 8.0.

- *Corrected*



Mr. Mike Ribordy
U.S. EPA – Region 5
October 15, 2001
Page 3

3) Section 9.10.2, typo - Reference to 11.4.1, should be 9.9.3.

- *Corrected*

4) Section 9.11.2 - Figure 5.0 was not included.

- *Removed reference - maintenance information is recorded as journal entries on run log or separate "college-style" notebook.*

5) TABLE 1.0 - The Low Soil QLS (330 ug/Kg) are greater than the PQLs (170 ug/kg) specified in QAPP TABLE 5F. The compounds 2,6-Dinitrotoluene and Carbazole should be included in this table. Carbazole should be included in Tables 6.0 and 8.0.

- *No changes necessary. Limits in QAPP to apply to fixed, confirmatory lab*

The SOPs for dioxin analysis by Severn Trent and for static headspace GC/MS (soil gas survey) by HydroLOGIC, Inc. supercede those previously submitted. For the static headspace analysis, SOP HLI-SOP-A-015-R1 Organics by EPA Method 8021, the SOP will be modified to accommodate running for soil gas samples by direct-injection as specified in the sample collection SOP. A 3-point calibration curve will be employed, and results will be reported as total VOC's. Method blanks and calibration checks will be run throughout the project.

Please do not hesitate to call Steve Smith if you have any questions on this information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert B. Veenstra', with a long horizontal line extending from the end of the signature.

Robert B. Veenstra
Senior Program Manager

Cc: Steve Smith, SA2SG Project Manager